university of toronto
computing services

UTCS ComputerNews

October 79
No. 174
ISSN 0315-4661

COMPUTERNEWS

Publisher

University of Toronto
Computing Services
Toronto, Ontario
Canada M5S 1A1

Editor

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Subscriptions

Subscription changes should be directed to the Information Office, Engineering Annex Room 206 or (416) 978-4990.

COMPUTERNEWS is a monthly publication produced by University of Toronto Computing Services. Enquiries or contributions should be directed to the Editor, Janet Barr or the Assistant Editor, Cathy Gillevet in the Engineering Annex, Room 206 or (416)-978-2066. Layout and typesetting are provided by Kathryn Bourne using UTCS typesetting facilities.

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FROM THE DIRECTOR'S DESK

Welcome once again to the new academic year. As the course work and activities on campus are gathering momentum, we see the users' work load beginning to build up. As described to you in the previous issue of *COMPUTERNEWS*, you undoubtedly have noticed the many changes in our services, which we hope will serve your needs better during this year.

Under UTCS's new organization, we are looking forward to the development of a personal relationship between the CSRs and our users. We hope that you will not hesitate to approach your CSR with any enquiry or request for help regarding our services. The detailed list of CSRs and an explanation of their new role was included in the last *COMPUTERNEWS* issue.

While re-equipment, consolidation and reorganization are largely behind us, we are in a position now to plan our future services, to evaluate new technologies and determine the best method to harness them for the enhancement of our services. In this framework, we are paying a great deal of attention to the area of distributed computing. We are evaluating this concept as a possible basis of the main thrust of our services in the '80s. It seems that we may be able to deliver our services most effectively through individual stand-alone computer systems for personal use and programming by the users. These distributed computer systems could be hooked together into a network through which they can communicate with our mainframes to enhance their stand-alone capabilities and draw on the centralized facilities for software support, program development and centralized maintenance, in addition to the obvious advantages of high computer power and database access.

As you may recall, in the December '78 issue of *COMPUTERNEWS* we announced the initiation of the investigation of the feasibility of the implementation of such a concept on our campus. We have given the project the name VIVA. Still far from having clear and exact ideas of the details regarding the best hardware and network systems to use, we are now beginning to experiment with what we believe to be the most crucial aspect of such a system, namely, the human interface. Even though the VIVA stand-alone computer system should be a general purpose open-ended device to provide different services, depending upon the option of software the user down-loads to it from the central library and repository, we have decided to give top priority to student services, recognizing our deficiencies in this area.

The VIVA project is just in the conceptual stage but, this year, we are performing an experiment geared mainly towards studying the human interface between a student and a stand-alone computer system dedicated to his use. Towards this end, our VIVA team has set up an experimental eight-unit benchmark shop, and implemented in it a prototype of a student service facility. This involved intensive study of the student course work requirements and the partial meeting of these requirements using the high level tools and distributed hardware which we believe best approximates the VIVA configuration in the future. This facility is now being tested by the students of two University of Toronto courses, serving over one hundred students as their sole computing service means. During the early part of September, each student attended a VIVA workshop which explained the use of the system. The trial users of VIVA are able to perform the same types of assignments as their counterparts using the facilities of the High Speed Job Stream (HSJS). However, VIVA users are spared the trouble of finding a keypunch, punching cards and queuing for card reader and printer services. Students using VIVA workstations operate in a self-contained environment in which they receive helpful prompts that as-

continued...

FROM THE DIRECTOR'S DESK continued

sist them in the preparation and submission of programs, retrieval and examination of output, and are provided with online documentation to instruct and guide them through their work. In addition to the savings in traditional hardware costs and software overhead, the ease with which people may interact with the computer is a major factor which UTCS anticipates will lead to the acceptance of VIVA. The article entitled *A GLIMPSE OF TOMORROW, TODAY* in this issue concentrates on this aspect of VIVA.

I would like to publicly thank not only the members of the team, but also those staff members who provided peripheral assistance in making this experiment possible with very few resources available other than their own enthusiasm and recognition of the importance of this project. This is just a small experimental beginning. The concept and its viability on the University of Toronto campus for use by students, secretaries, administrators, researchers and teachers is yet to be fully examined. We hope that within this academic year, UTCS will be successful in identifying the next step, and will be provided with the necessary resources to carry it through.

Members of the University of Toronto should feel free to enquire about the VIVA experiment. They are invited to observe VIVA in operation and submit their suggestions and comments to the VIVA team. As stated previously, the VIVA project was designed for the users, and will be developed with the co-operation of the users. The experiment currently being carried out was made possible through the co-operation of some enthusiastic faculty members and teachers who wanted to see our computing services for students improved. Future development will follow the same pattern.

Thank you very much for your co-operation.

Dr. Doron Cohen

A GLIMPSE OF TOMORROW, TODAY

VIVA Phase I

UTCS has recognized the need to upgrade its Student Services and, accordingly, has allocated the resources of Phase 1 VIVA for testing the improvement of our High Speed Job Stream services. Phase 1 is the first production-level implementation of an experimental benchmark demonstrating the principles and specifications which were established during the past year as part of the development of the VIVA concepts.

September 4, 1979 marked the beginning of an experiemental production phase for VIVA. Room 203 at the Engineering Annex opened to offer VIVA HSJS services to two test groups of students. 87 Computer Science students and 17 Engineering students are participating in this initial trial stage of VIVA.

Throughout the design process, great emphasis was placed upon human engineering to address the problems of the traditional human-computer dialogue, interface and total working environment which is observable in typical keypunch-cardreader-lineprinter terminals. In addition, meticulous care was given to systems-design in order to create a product which had good human engineering from the software/hardware upgrading and maintenance points of view. The first results of the above efforts are the cluster of 8 VIVA workstations currently running in EA 203.

The design goals which UTCS identified as essential to achieve prior to any level of production, are described briefly below.

continued...

TOMORROW, TODAY continued

One-user-one machine

For the duration of a VIVA session (i.e. 1 or 2 hours) each user has a distributed computing workstation for his own use. A VIVA station consists of a video-terminal, a diskette drive for mini-floppies , a micro-computer and non-removable large storage on a hard disk. The integration of the above hardware with correspondingly state-of-the-art software produced a service that has full- screen editing and browsing facilities, use of video features to enhance the information displayed and an online documentation aid called the help facility which permits the user to read the appropriate page (or pages) of documentation, directly associated with the VIVA feature that is being used. In order to assist the novice or beginner, these features have already been implemented in two computer-aided learning sessions which are used by the students for their orientation.

In the near future, the local intelligence of the VIVA workstations will be extended to cover local compilation and execution for some languages (i.e. SP/K, FORTRAN, PASCAL etc.).

A further major area of expansion may be in the field of word processing where a VIVA station is ideally suited to fulfill several needs around the office. Furthermore, it will offer advantages over the currently available commercial units by providing the best of both worlds: a stand-alone unit for quick response and flexibility as well as a mainframe connection for high speed printing, typesetting and access to data. In general, the flexibility designed into VIVA allows custom tailoring for screens, help tutorials or other features which may be essential to a particular application environment.

Communication with a remote Host

The second fundamental concept of VIVA as it has been implemented for Phase 1 allows the individual workstation to carry out two-way communication with the UTCS IBM 3033. This feature enables the user to submit a HSJS job or browse the returned listing using single key operations from the terminal. Another user-transparent but most essential utilization of communications is for the systems developers' use of 'down-line-load'. When new features are added or old bugs are fixed, the new versions of the corresponding VIVA modules can be sent down the wire and automatically installed on any (or all) VIVA workstations which require the change.

It is quite likely that development in communications in the future will provide for an efficient means of accessing **any** remote host (i.e. IBM 3033, 3031, 165, DEC 1090, etc.) from a given VIVA terminal. It may also be feasible to **remain** logged-on with more than one remote host at a time.

Versatile user-removable medium

The escalating costs of paper and the mechanical failures associated with the card-system have promoted the use of an alternative user-removable medium for VIVA: the mini-diskette. The user may store up to 70 K-Bytes of information (the equivalent of 1.3 boxes of cards with FORTAN statements) on a diskette and carry it around easily, avoiding the inconvenience and weight of a card deck and free of the fear of dropping the deck on the floor. In addition, the user may maintain a complete backup of his files by keeping a second copy on a different diskette. For Phase 1 , the students are reminded to make full and accurate use of this feature.

Thus use of paper is limited to instances when the user wishes to examine the output while away from the terminal or for delivering a hardcopy of a successfully completed program or text document for use by someone else. Future development through communications may further reduce the use of the hardcopy printout by enabling one user to mail a file from one VIVA station to another (i.e. student to professor or advisor, intra-campus mail etc.)

continued...

TOMORROW, TODAY continued

The flexibility which has been built-in in the three major areas above and the modular-design of software will allow VIVA to benefit from technological advances made in micro-processor and large storage device fields in addition to utilizing sophisticated network architecture in communications.

Perhaps the best measurement of VIVA's performance to date is the success of the students participating in the experiment. At the time of the writing of this article, these students have completed their first assignment and are winding up their work on the second assignment. Admittedly the system is going through its 'infant-mortality' stage and we are grateful to our users for pointing out (and putting up with) our bugs for the first few weeks. But as they themselves are observing, the system is performing better by the day and they're flying-through the PF's by each VIVA-hour.

So if you wish to take a look at tomorrow's computing environment but you don't want to wait that long, contact your UTCS Computing Services Representative and arrange for a visit and a demonstration today!

Thanos

PERSPECTIVES FOR RESEARCH IN COMPUTING

Continuing the series of lectures sponsored by IBM, UTCS is pleased to announce that on Thursday, October 18th, Dr. Stuart Krasney, Manager of Research and Audio-Video Education at IBM's T.J. Watson Research Centre (Yorktown Heights, New York), will describe current research at the Centre in the area of **task-oriented computer-based instruction.** This research is concerned with the use of video technology to convey conceptual computer principles for the training of non data processing personnel. Dr. Krasney will discuss the implications of his work in the context of new, emerging technologies. This lecture will take place on Thursday, October 18th, at 2:30 in the McLennan Physical Laboratories, Room 203.

This lecture is intended for those interested in the application of computers to teaching processes. All members of the scientific community, including students, members of the University of Toronto, and readers of this article, are invited to attend this lecture.

Please note that there will be two more lectures of this kind to be held in November and December respectively. In November, there will be a presentation by a participant in the Royal Commission on Corporate Concentration. December's seminar will be concerned with the use of medical databases in medical research and development applications.

Anybody with suggestions concerning topics or speakers for future seminars is invited to contact Dr. Frank Spitzer (978-4619) with this information.

Dr. Frank Spitzer

COMPUTER CODE SECURITY

A number of users each year suffer loss of computing funds due to unauthorized use of their Service Access Codes (SACs). UTCS will investigate all reports of such unauthorized usage but cannot guarantee reimbursement for losses unless reasonable evidence is produced to show negligence on the part of UTCS with respect to the security protection of a particular user's Code.

For optimal security, it is strongly recommended that users adopt the following precautions in the handling of their Codes:

- Think of your Access Code and password as a credit card or blank cheque - **don't lose it.**
- **Remove job cards** from card decks left in card storage cabinets, public batch terminals, or trash cans.
- **Destroy output** from terminal sessions or batch jobs which include your password.
- **Obscure the password** on your job card or on your terminal output.
- The safety of your Code will be increased if, as a matter of course, you adopt the habit of **destroying all unused data.** Thus, you should not only throw away unused materials e.g. cards, datasets, and listings, but tear them up before such disposal. For magnetic media, writing garbage before deleting the file serves the same purpose.
- **Avoid sharing an access code.** Where possible, a separate Access Code should be estabished for each user.
- **Change your password periodically.** Especially, change your password if you are not planning to use your Code for an extended period. Better still, ask Accounting Services to deactivate your Code until needed. Some passwords (for example, ATS and DEC-10 passwords) can be changed by the user, generally when signing on. Changes to SAC, WYLBUR or TSO passwords must, however, be made through Accounting Services.
- **Observe the balance,** or cumulative usage, on your output to determine whether excessive activity has taken place.
- **Limit,** where convenient, the maximum amount that can be spent on your Access Code.
- **Report suspected misuse** to Accounting Services as soon as possible.
- **Avoid embedded 'job cards'** in online datasets. When using TSO, UTCS recommends the SCHEDULE command to build a job card for batch jobs; the RUN command should be used to build a job card when using WYLBUR. For detailed advice regarding the use of these facilities, refer to the Wylbur manual or enter HELP SCHEDULE in TSO. If particular problems are encountered, consult your CSR.

Dr. Frank Spitzer

NEW MEMORY LIMITS

Beginning October 15, 1979, memory restrictions will be relaxed for all classes of batch service on the IBM 3033 Processor. With this change, any batch jobs may request up to 500K of memory without the use of a /*SETUP statement. The following summarizes the new restrictions by class:

Class A: Limited to a maximum of 500K: if a /*SETUP card is included, the job will be placed in Class B.

Class B: No fixed limit: a /*SETUP card is required for region requests in excess of 500K. (Users should be aware that jobs requiring very large regions (1000K or more) cannot be scheduled during busy periods of the day.)

Class C: Limited to a maximum of 500K: if a /*SETUP card is included which requests more than 500K, the job will be cancelled by the operator.

Class E: Limited to a maximum of 1000K: a /*SETUP card is required for region requests in excess of 500K. (Class E is a special, low cost, execution-only service. Jobs are submitted to the 3033 Processor, but are executed on the S/370-165-II computer. See last month's issue of *COMPUTER-NEWS* for more details.)

Any questions regarding these changes should be directed to your local Computing Services Representative.

Ward Beattie

PHYSICS UNDERGRADUATE TERMINAL (PUT)

In March and April of this year, UTCS operated a temporary HSJS terminal in the McLennan Labs. This terminal was well used and helped UTCS meet the demand for student computing in the spring months.

UTCS is happy to announce that this terminal, referred to as the Physics Undergraduate Terminal or PUT for short, will be in operation this academic year from mid-October until mid-April. This terminal will be located in Room 200 of the McLennan Labs.

Facilities at PUT will include fourteen keypunches, an IBM 2501 card reader, and an IBM 1403 printer. The terminal will be open for business 8:00 a.m. to 10:00 p.m. weekdays from October 15 until April 25. An advisor will be on duty from 10:00 a.m. until 7:00 p.m. Monday to Thursday and from 10:00 a.m. until 5:00 p.m. on Fridays.

Bob Chambers

NON-CREDIT SHORT COURSES

Once again UTCS is offering a selection of non-credit short courses. These courses are open to holders of valid Customer Account Numbers and are designed to improve the user's knowledge of various types of programming.

Please note that courses which are in high demand will be repeated. If an individual group within a department requires a course, arrangements should be made through the Customer Services Representative for that department.

To register for any of the following courses, please contact the UTCS Information Office, Room 206, Engineering Annex, 11 King's College Road, 978-4990.

Introduction to Computing

Prerequisite: Computing experience is not essential for this course though persons who have used such prepackaged programs as SPSS may find the course useful.

Dates: Oct. 29, 30, 31 and Nov. 1 and 2

Time: 9a.m. - 10a.m.

This course will introduce the new user to the various services and programs available at UTCS. The course is an overview of computer concepts and terminology rather than specific information on a given system or machine.

Introduction to Job Control Language (JCL)

Prerequisite: Some familiarity with batch processing.

Dates: Oct. 29, 31 and Nov. 1 and 2

Time: 12 p.m. - 1 p.m.

JCL is a set of control statements which must be supplied to the operating system to give it the information required to initiate, process and complete a job or unit of work. These statements communicate details such as who the user is, what he/she wants done, how much time it will take, how much space is required, what devices will be involved, what data and problem-solving routines are to be used, where they are located and where the results are to be printed or stored. This course is intended to get the student started by presenting the basic JCL statements, their uses and coding rules.

Introduction to SPSS

Prerequisite: Some background in Social Science statistics plus Course 1 or equivalent.

Dates: Nov. 5, 6, 7, 8 and 9

Time: 4 p.m. - 5 p.m.

This course is designed for the social science user planning to process statistical data by computer. SPSS is an application-oriented programming language with powerful routines for data analysis while permitting the user to manipulate data with simple FORTRAN-like statements. This course is introductory in approach and therefore would be beneficial to those with no SPSS experience.

WYLBUR for Programmers Using Cards

Prerequisite: Knowledge of batch processing or some familiarity with JCL recommended.

Dates: Nov. 12, 14 and 16

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NON-CREDIT SHORT COURSES continued

Time: 12 p.m. - 1 p.m.

WYLBUR is a system designed to manipulate various kinds of text: computer programs, manuscripts, letters, etc. It provides online interactive text editing capabilities. In addition, WYLBUR has facilities for remote job entry and retrieval. The English-like command structure of WYLBUR is easy to learn and use.

Introduction to APL

Prerequisite: None.

Dates: Nov. 19, 20, 21, 22 and 23

Time: 12 p.m. - 1 p.m.

APL, A Programming Language, is an interactive system allowing statements to be transmitted using a typewriter-like keyboard. APL may be used for such applications as: administrative data processing, system design, mathematical and scientific computation and databases.

The course will be taught at a very low level. Therefore, no previous knowledge of computing or programming is required.

Introduction to Computer Graphics

Dates: To be announced.

This course is intended as a practical introduction to computer graphics using Gould, Calcomp and graphics terminals. Scientific, artistic, commercial and transactional aspects will be discussed. No prerequisite is required although knowledge of FORTRAN can be helpful. While Gould and Calcomp will be restricted to the IBM 3033 for practice in this course, the interactive graphics KIG will be used on both the IBM 3033 and DEC-10. As hands-on experience both through batch and interactive access will be presented, enrolment will be limited to twenty persons.

THE 1979 CANADIAN COMPUTER SHOW

The Canadian Information Processing Society and Canadian Datasystems Magazine are sponsoring the 1979 Canadian Computer Show and Conference. This tenth anniversary show is considered a major event for the data processing industry and features the latest innovations in computer equipment and services.

The show, with a total of 180 exhibitors, will be held on November 13th, 14th and 15th at the Toronto International Centre for Commerce.

Preregistration forms are available at the UTCS Information Office, 978-4990.

The Canadian Computer Show and the Canadian Computer Conference will be held concurrently. Conference talks will be conducted each day of the show. Those interested in attending the Canadian Computer Conference should note that separate registration is required for the conference and attendance is limited. Again further information can be obtained from the Information Office, Engineering Annex, Room 206.

Dawne Smith

APL NEWS

New APL Programmer

UTCS is pleased to welcome Eric Haberfellner, the Application Support Group's new APL programmer. In addition to providing APL support and maintenance, Eric will be investigating and recommending new APL services as well as providing courses in the use of APL. (see the article entitled *NON-CREDIT SHORT COURSES* in this issue.)

Adjustment of APL Charges

In January of this year, UTCS's APL services were transferred from the S/360-65 to the S/370-165-II. The S/370-165-II's processing speed proved to be approximately four times faster than that of the S/360-65; as a result, UTCS increased the overall CPU charge by a factor of four. This general CPU charge included the I/O transfer charges. Since the conversion, several users have reported what they have found to be unreasonably high charges for APL usage. Upon investigation of these reports, it was discovered that whereas the S/370-165-II's processing speed was four times faster than that of the S/360-65, the 165's I/O transfer speed was not four times faster. This means that users have been overcharged for the I/O component of the CPU charge. In order to compensate for this overcharge, UTCS will be refunding approximately 1/3 of the CPU charges incurred since May 1, the beginning of this fiscal year.

Economize with Larger Workspaces

Users are reminded that APL workspace size has been increased to 176K bytes. In many cases this means that APL users will be able to reduce their computing costs by storing information within workspaces rather than using file storage. Depending on the application, I/O costs may be significantly reduced.

Don Gibson

POLICY ON UTCS 3033 OUTPUT QUEUES

Over the past several months, many users have expressed confusion concerning the status of jobs in the various output queues. The following article describes UTCS's policy regarding output queues.

Every job submitted to the IBM 3033 Processor has a print destination. /*ROUTE PRINT or /*OUTPUT DEST= cards are used to specify this print destination. If neither card is used, the system default is the remote terminal from which the job was submitted. For TSO and WYLBUR, the default is the CENTRAL* printer at the Engineering Annex Terminal (EAT). When a job finishes execution, it is submitted to the standard print queue. Jobs are queued according to when they were submitted and to the priority specified.

For those users who do not wish to have their output printed immediately after execution, most terminal remotes have a HOLD queue. The HOLD queue is a facility which enables users to specify when their job is to be printed. The user's job will remain in the HOLD queue until released by the operator or user. A job may stay in the hold queue for a **maximum** of 7 consecutive days. After 7 days have elapsed, if the job is still in the hold queue, the job will be **deleted.** No credits will be accepted for jobs deleted in this manner.

Users wishing to scan output before having

continued...

3033 OUTPUT QUEUES continued

it printed may do so using the FETCH command in TSO or WYLBUR. In order to use the FETCH command, the job must be routed to the FETCH queue. The /*JOBPARM QUEUE=FETCH for batch jobs, the QUEUE command in TSO, or the RUN command with the FETCH option in WYLBUR will place a job in the FETCH queue. Once a job has been fetched, the output may be scanned. If a hardcopy of the output is required, it must be routed to a valid print queue. A job may remain in the FETCH queue for 2 full working days. Jobs remaining in the FETCH queue longer than 2 working days will be **deleted.** No credits will be accepted for jobs deleted in this manner.

Occasionally, UTCS finds it necessary to perform a **Cold Start.** In order to carry out a Cold Start the system must be cleared of all jobs awaiting print. This includes jobs in both the HOLD queues and FETCH queues. When a Cold Start is scheduled, users are notified 1 week in advance via HOTNEWS and TSO/WYLBUR broadcast messages. This allows users with jobs in the print queues to clear their jobs, either by printing or deleting them. All jobs remaining in the print queues at the time of the Cold Start will be printed at the CENTRAL printer in the Engineering Annex Terminal, if possible**. This includes all jobs in the FETCH queue, regardless of the length of time they have been in the queue.

To keep the number of Cold Starts to a minimum, users are urged and encouraged to practise good job management. Printing jobs in the HOLD queues as quickly as possible, and either routing or purging jobs in the FETCH queues when scanning has been completed will assist UTCS in providing users with a better service.

* All users please take note: The destination code for the 'behind the counter' printer at the Engineering Annex Terminal (EAT) is CENTRAL. Please do not use the destination code LOCAL.

** All jobs queued at a remote site requiring special forms should be printed at that remote prior to a Cold Start. Any job having a special forms code which is not recognized by UTCS will be **deleted** prior to a Cold Start.

Sue Chong

CLASS C SERVICE

Since June 4, 1979, CLASS C service has been provided at reduced rates for the summer period by charging half the normal memory rate for CLASS C. This reduced rate was advertised as being in effect from June 4, 1979 to September 30, 1979. Users are reminded that CLASS C memory charges will return to their normal service factor of 0.75 as of October 1, 1979. CLASS C jobs executed up to 20:00 hours on September 30, 1979 will be charged at the summer rate. Jobs in the queue after the 00:00 hours start-up on October 1, 1979 will not be deleted unless users specifically request cancellation. These jobs will be executed during subsequent available periods and will be charged at the normal rate quoted above. Users who wish to ensure that they obtain the cheaper rates should therefore submit their jobs well in advance to avoid any last minute rush and, if necessary, ask UTCS to cancel CLASS C jobs remaining in the queue on September 30 if they do not wish to pay the normal rates.

The CLASS C summer service was enhanced in that the hours of service for CLASS C execution were expanded to allow start-up of CLASS C before midnight when load permitted and to allow weekend execution of CLASS C jobs which were in the queue by Friday evening when load permitted.

These expanded hours of service will

continued...

CLASS C SERVICE continued

remain in effect after October 1 when possible but will be curtailed with the normal increase in load arising from the fall academic term.

Users who have any further questions on CLASS C service after October 1, 1979 should contact any CSR. Complete documentation on CLASS C service can be found in the USERBOOK module 3.3BATCH.

Paul Scarborough

THE APPLICATIONS SUPPORT GROUP

One of the groups within the UTCS Services Support area is the Applications Support Group. The primary duties of the Applications Group include processor support and maintenance, and the development and implementation of special purpose user utilities and problem programs.

Prior to the restructuring of the UTCS organization, UTCS's users consulted with the various members of the Applications Group on a personal basis. With the recent reorganization of UTCS, users no longer deal directly with members of the Applications Group, but rather deal with one of the Computing Services Representatives (CSR); i.e. at UTCS, if a user is encountering problems related to the application software packages, the user is directed to his CSR. If the CSR cannot resolve the problem, the CSR will contact the appropriate member of the Applications Group on the user's behalf. In cases where the problem is of a highly technical or complicated nature, the CSR will schedule a meeting between the user and the applications programmer and will monitor the progress of the meeting.

This structured approach to handling user problems should prove highly beneficial to all members of UTCS's user community. Not only will user's problems be solved in a more satisfactory fashion, but the additional time which will be available to members of the Applications Group as a result of the above arrangement will enable the group to direct more of its energies toward developing and introducing new products to the university community.

The members of the Applications Support Group and their areas of expertise are introduced below.

Dr. John Roth is responsible for maintaining UTCS's statistical software packages. Dr. Roth is very familiar with Datatext and SPSS, as well as various other statistical packages.

Mr. Kin Fong has been responsible for the development of an advanced interactive graphics system. In addition to his work in the area of advanced graphics applications, Mr. Fong has extensive expertise in FORTRAN, PL/1, and other IBM source language processors.

As well as providing UTCS MARK IV support, Mr. John Bradley specializes in text processing applications. Additionally, Mr. Bradley specializes in humanities applications, i.e. concordances, etc.

Like Mr. Bradley, Ms. Bernice Ogino is also involved in text processing applications. In addition, Ms. Ogino will soon be providing educational support to interactive graphics users.

Mr. Eric Haberfellner is one of the newer members of the Applications Group. Mr. Haberfellner will be dealing with advanced APL applications.

Lidio Presutti is another new member of the Applications Group. Initially Lidio will be acting as a backup for the other programmers in the group.

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APPLICATIONS SUPPORT continued

Mr. Herb Kugel, the Supervisor of the group, handles the 'pathological' problems i.e. the tape and utility problems.

Herb Kugel

SAS 79.2 NEW DEFAULT

On September 19, the 79.2 version of the Statisitical Analysis System (SAS) became the default on both batch and TSO. While SAS Institute Inc. distributes this version as an experimental test system only, testing over the past two months by users has shown the 79.2 version to be quite stable after a couple of problems had been resolved. The features of this major upgrade were outlined in the August issue of *COMPUTERNEWS.*

The SAS 76.6 will be available until 79.3 has been installed and tested (expected in October). Although available, the 76.6 release is now essentially unsupported by UTCS and SAS Institute Inc. To access the SAS 76 version on batch the user should code // EXEC SAS76 instead of // EXEC SAS; on TSO the user should enter the command *sas 76* instead of *sas.*

Users with problems or suggestions related to either version of SAS are requested to contact their Computing Services Representative.

John Roth

PERSONNEL CHANGES

Michael Afheldt is leaving the Communications and Small Systems Group to join T.I.E. Communications.

Jim Heifetz will be leaving the Systems Group at the end of September.

Lee Manning has left UTCS to join the Bank of Nova Scotia.

David Hart has left his position with UTCS to join Amdahl in Toronto. At Amdahl, David will be working as a systems engineer.

Joyce Larcher, the Accounting Supervisor in McLennan Labs., will be leaving us September 21st.

As of September 24, Lidio Presutti will become a full-time staff member with UTCS. Lidio will be working as a programmer in the Services Support Group.

Eric Haberfellner is a new programmer with UTCS's Services Support Group. Eric was an employee of Datacrown Incorporated. While at Datacrown, his duties included operations support programming.

Howard Lem is a new member of the Academic Services Group and will be working as a programmer at Erindale College Computing Services. Howard previously worked for UTCS as a part-time advisor/operator.

Raeann Chipman

NEW TITLES IN DCS LIBRARY

ACM Symposium on the Theory of
Computing, 10th, San Diego,
May 1978.
Conference record.

Boehm, Barry W. et al.
Characteristics of software
quality.
Amsterdam, North-Holland, 1978.

Clinic on Library Applications
on Data Processing, University of
Illinois.
Proceedings, 1978.

Doll, Dixon R.
Data communications: facilities,
networks and systems design.
New York, Wiley, 1978.

Fahlman, Scott E.
NETL, a system for representing
and using a real-world knowledge.
Cambridge, Mass., MIT Press, 1979.

Garey, Michael R. and Johnson, D.S.
Computers and intractability:
a guide to the theory of NP-completeness.
San Francisco, W.H. Freeman, 1979.

Hansen, Eldon R.
A table of series and products.
Englewood Cliffs, N.J.,
Prentice-Hall, 1975.

International Conference on Software
Engineering, 3d, Atlanta, May 1978.
Proceedings.
New York, IEEE, 1978.

Laver, F.J. Murray.
An introduction to the uses of
computers.
Cambridge University, 1976.

Lipschutz, Seymour and Poe, A.
Programming with FORTRAN, including
structured FORTRAN.
New York, McGraw-Hill, 1978.

Parker, Donn B.
Ethical conflicts in computer
science and technology.
Arlington, Va., AFIPS Press, 1979.

Parker, Donn B.
Ethical conflicts in computer
science and technology: workbook.
Arlington, Va., AFIPS Press, 1979.

Price, Wilson T. and Olson, J.L.
Elements of COBOL programming.
Hinsdale, Ill., Dryden Press,
1977.

Raphael, Bertram.
The thinking computer: mind inside
matter.
San Francisco, W.H. Freeman, 1976.

SIGMETRICS/CMG VIII Conference on
Computer Performance Modeling,
Measurement and Management, 8th,
Washington, D.C., Nov. 1977.
Computer performance evaluation,
ed. by Robert L. Morrison.
New York, ACM, 1977.

Shelly, Gary B. and Cashman, T.J.
Introduction to computer programming:
structured COBOL.
Fullerton, Cal., Anaheim Pub. Co.,
1977.

Smith, Marilyn Z.
Standard COBOL: a problem-solving
approach.
Boston, Houghton Mifflin, 1974.

Smith, Robert Ellis.
Privacy: how to protect what's left
of it.
Garden City, N.Y., Anchor Press,
1979.

Ullman, Shimon.
The interpretation of visual

continued...

NEW TITLES continued

motion.
Cambridge, Mass., MIT Press, 1979.

Wegner, Peter, ed.
Research directions in software technology.
Cambridge, Mass., MIT Press, 1979.

Winston, Patrick Henry, and Brown, R.H., eds.
Artificial intelligence, an MIT perspective.
Cambridge, Mass., MIT Press, 1979.
2v.

UTCS SYSTEMS

3033 PROCESSOR

- located in Mclennan Physical Laboratories
- provides General Purpose Job Stream, High Speed Job Stream, TSO, WYLBUR
- 6 megabytes of memory
- MVS with JES2

SYSTEM/370 MODEL 165-II

- located in McLennan Physical Laboratories
- provides APL and ATS services
- 4 megabytes of memory
- OS/MVT with APL and ATS

3031 PROCESSOR

- located in McLennan Physical Laboratories
- provides administrative IMS/VS DB/DC Batch and TSO services
- 6 megabytes of memory
- MVS with JES2

DECSYSTEM 10 Model 1090

- located in Sandford Fleming
- provides General Purpose Time-Sharing
- 256k - 36 bit words of memory
- TOPS10 operating system

COMMUNICATIONS & SMALL SYSTEMS (CSS)

- located in SF106
- DEC GT44 System with PDP-11/40 CPU
- 2 Z-80 based microcomputers
- DEC GT40 System with PDP-11/05 CPU
- provides specialized graphics and interactive graphics
- provides on-line and real-time computing services, data acquisition and minicomputer services

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Eugene Siciunas	MP350	4967
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Derry Cox	MP350	7092
MANAGER, SYSTEMS		
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Suzan Fawcett	MP350	4428
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ACCOUNTS		
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Sylvia May (External)	EA206	7148
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Bill Lauriston	SG201	6877

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Krishna Patnaik (DEC-1090 & CSS)	SF106	4086
Dave Wong (IBM 3031)	MP335	6846

KEY:

EA = Engineering Annex
SF = Sandford Fleming
SG = 49 St. George
SS = Sidney Smith
MP = McLennan Physical Laboratories (New Physics)

JOB AND SYSTEM STATUS QUERIES

SYSTEM/3033,TSO	7373
ATS/APL	6234
2741 TERMINAL MALFUNCTIONS	7107

TIME-SHARING SERVICES	DIAL-UP
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TSO,WYLBUR	6200 CENTREX 6201 NON CENTREX
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